REMARKS

Entry of the foregoing and reconsideration of the application identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.111 and in light of the remarks which follow, are respectfully requested.

By the above amendments, the specification and abstract have been amended for readability and clarification purposes. In this regard, submitted with the present paper is a clean copy of a substitute specification as well as a marked-up version showing the changes that have been incorporated in the substitute specification. No new matter has been introduced by these amendments.

Claims 1-12, 14 and 16 have been amended for readability and/or clarification purposes. New claim 17 has been added which depends from claim 1. New independent claim 18 is directed to an exemplary method, and new claims 19 and 20 depend from claim 18. Support for the newly added claims can be found in the instant specification at least at least at paragraph [0019].

The abstract and specification stand objected to for the reasons set forth at pages 2 and 3 of the Official Action. These objections are moot in view of the above amendments to the abstract and specification. Accordingly, withdrawal of such objections is respectfully requested.

Claims 1-10 and 16 stand objected to for the reasons set forth at pages 3 and 4 of the Official Action. The objections to claims 1-10 are moot in view of the above amendments to claim 1. Concerning claim 16, it is noted that such claim now recites that the multi-sample receptacle unit is capable of accepting samples placed vertically for segregation in the gravitational field. Accordingly, withdrawal of the above objections is respectfully requested.

Claims 1-16 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. This rejection is moot in view of the above amendments, in which claim 1 has been amended by deleting the term "for example", the references to equations, the references to numerals of steps, and various parentheticals. Claims 3 and 11 have been amended by deleting a parenthetical and the term "for example" therefrom, respectively. Claim 14 has been amended by deleting the word "the" prior to "measurement range" and "measurements". Accordingly, in view of such amendments, withdrawal of the §112, second paragraph, rejection is respectfully requested.

Claims 1 and 4 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,095,451 (*Allen*). Withdrawal of this rejection is respectfully requested for at least the following reasons.

Independent claims 1 and 18 are each directed to a method for an automatic determination of physical, technical method and/or colloidal chemistry parameters.

Allen relates to a method and apparatus for determining particle size distribution of particulate samples. See abstract. *Allen* discloses radially scanning a suspension of dispersed particles under a centrifugal force field by passing a beam of radiation from a radiation source through the suspension while moving the radiation source and an associated radiation detector for receiving the beam in a radial direction with respect to the chamber, the radiation source and radiation detector being positioned on opposite sides of the chamber, and the radiation detector continually generating radiation transmission data. See col. 3, lines 45-53.

It is well established that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in

a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). For an anticipation to exist, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

In the present case, *Allen* does not disclose each feature recited in independent claims 1 and 18, and as such fails to constitute an anticipation of such claims. For example, *Allen* does not disclose, during the segregation by centrifugation or gravitation, repeatedly determining and recording momentary transmission values $I_T(t, r)$ characterizing a current segregation status of the waves radiated with intensity values $I_o(t, r)$ and/or instantaneous scattering values $I_S(t, r)$ as a function of a position r within the samples at a time t, for one or more wavelengths over the entire length of each sample or in selected partial sections of each sample, simultaneously for multiple samples. That is, claims 1 and 18 specify that the momentary transmission values $I_T(t, r)$ characterizing a current segregation status of the waves radiated with intensity values $I_o(t, r)$ and/or instantaneous scattering values $I_S(t, r)$, are determined and recorded **simultaneously for multiple samples**. *Allen* has no disclosure of such claimed subject matter.

By comparison, *Allen* merely discloses passing a beam of radiation from a radiation source through the suspension while moving the radiation source and an associated radiation detector for receiving the beam in a radial direction with respect to the chamber, the radiation source and radiation detector being positioned on opposite sides of the chamber, and the radiation detector continually generating radiation transmission data. There is simply no disclosure of obtaining transmission data **simultaneously for multiple samples**. Nor is there any indication that the

apparatus disclosed by *Allen* is even capable of obtaining transmission data simultaneously for multiple samples.

For at least the above reasons, *Allen* fails to constitute an anticipation of independent claims 1 and 18. Accordingly, withdrawal of the above rejection is respectfully requested.

Claims 2, 11, 15 and 16 stand rejected under 35 U.S.C. §103(a) as being obvious over *Allen*. Claim 7 stands rejected under 35 U.S.C. §103(a) as being obvious over *Allen* in view of U.S. Patent No. 4,975,578 (*Tomimasu et al*). Claim 10 stands rejected under 35 U.S.C. §103(a) as being obvious over *Allen* in view of U.S. Patent Application Publication No. 2002/0147563 (*Lerche et al*). Claim 12 stands rejected under 35 U.S.C. §103(a) as being obvious over *Allen* in view of *Lerche et al* and U.S. Patent No. 3,344,702 (*Wood et al*). Withdrawal of these rejections is respectfully requested for at least the following reasons.

For the reasons discussed above, *Allen* does not disclose or suggest that the momentary transmission values $I_T(t, r)$ characterizing a current segregation status of the waves radiated with intensity values $I_o(t, r)$ and/or instantaneous scattering values $I_S(t, r)$, are determined and recorded simultaneously for multiple samples, as recited in independent claims 1 and 18.

Independent claim 11 is directed to a device for an automatic determination of selected physical, technical method and/or colloidal chemistry parameters.

Allen does not disclose or suggest each feature recited in independent claim 11. For example, *Allen* does not disclose or suggest a PC-controlled multi-sample receptacle unit arranged vertically or horizontally with a spectrometric measurement device with a source producing monochromatic parallel radiation. Concerning such

claimed subject matter, the Patent Office has taken the position that the tanks 10 and 40 shown in Figures 1 and 4 of *Allen*, respectively, each correspond to the claimed multi-sample receptacle unit. See Official Action at page 11. However, each of such tanks is not a multi-sample receptacle unit, i.e., a receptacle unit for accommodating multiple samples. Rather, in view of *Allen*'s description of such tanks and their modes of operation, the tanks can at best be considered to accommodate a single sample. Simply put, there is no disclosure or suggestion of a PC-controlled multi-sample receptacle unit as is presently recited in claim 11.

The secondary applied documents (i.e., *Tomimasu et al*, *Lerche et al* and *Wood et al*) fail to cure the above-described deficiencies of *Allen*. In this regard, the Patent Office has relied on *Tomimasu et al* for disclosing means for determining mass density. See Official Action at page 13. *Lerche et al* has been relied on for disclosing the use of a database. See Official Action at page 14. *Wood et al* has been relied on for disclosing a cuvette positioning device with a plurality of cuvettes wherein the positioning can be programmed, and a detecting device. See Official Action at page 15. Even if the secondary applied documents would have been combined with *Allen* in the manner suggested by the Patent Office, the resulting combination nevertheless fails to disclose or suggest repeatedly determining and recording momentary transmission values $I_T(t, r)$ characterizing a current segregation status of the waves radiated with intensity values $I_o(t, r)$ and/or instantaneous scattering values $I_S(t, r)$, simultaneously for multiple samples, as recited in claims 1 and 18.

Furthermore, one of ordinary skill in the art would not have been motivated to modify *Allen* by employing therein the cuvette carrier disclosed by *Wood et al*. As

can be seen from Figures 1 and 2 of *Allen*, an essential aspect of the *Allen* method and apparatus is that the tank 10 functions as a centrifuge by operation of a motor 20 used to spin the tank 10. See col. 8, lines 50-53. By comparison, referring to Figure 2 of *Wood et al*, the cuvette carrier 26 which carries cuvettes 28a, b, c and d, is positioned by a mechanical moving means 38 including a motor driving a cam. See col. 4, lines 10-22. In view of the fact that *Allen* teaches the rotational movement of the tank for attaining a centrifuge function, and *Wood et al* teaches the repositioning of the cuvette carrier by use of a mechanical moving means, it is uncertain how such centrifuge tank and moving cuvette carrier would have been combined in a manner which retains both the centrifuge and cuvette repositioning functions. Furthermore, no explanation has been provided as to how *Allen*'s disclosed primary function of determining particle size distribution would have been maintained in the alleged combination of *Allen* and *Wood et al*. Simply put, in view of the modes of operation and the nature of the processes and apparatuses disclosed by *Allen* and *Wood et al*, it would not have been obvious to the ordinarily skilled artisan to modify *Allen* by employing therein the cuvette carrier disclosed by *Wood et al*.

For at least the above reasons, it is apparent that the claims are non-obvious over the applied documents. Accordingly, withdrawal of the §103(a) rejections is respectfully requested.

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is earnestly solicited.

If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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